Currently there have been many articles talking about the determining factors of businesses' success. However, there aren't that many research that studies why businesses' fail. First of all, how to define a business's failure? One set of definitions of failure involves a business's decline (e.g., Weitzel and Jonsson 1989), whereas many include closure or bankruptcy. In this study, I would focus on restaurant closure. The purpose of this study is to examine the reason why restaurant close. More specifically, how do the mechanisms of food, service and location impact the closing of restaurants, which got their license in 2012 in Chicago area?

Failure in the restaurant industry was studied by Parsa et al. (2005). They listed these following three key factors that contribute to restaurant failures: size and type of operation, competition and restaurant concept or segment. The second factor, restaurant concentration, emerged from Parsa et al.'s (2005) finding that restaurant failure rates are higher in U.S. Postal ZIP codes where there is a high concentration of restaurants. This extended to downtown locations, which had far higher restaurant failure rates compared with suburban locations. Parsa also interviewed several owners of failed restaurants and then highlighted personal reasons for restaurant failure. Factors included a high "demand of labor and time; poor food-quality

controls or low perceived value; being undercapitalized or having poor financial management; and the quality of employees and service (Parsa et al. 2005, 315).

However, as numerous studies have focused on this issue, we are taking a different approach to study why restaurants close by taking a closer look at Yelp reviews. Technological advances over the past decade have led to the proliferation of consumer review websites such as Yelp.com, where consumers can share experiences about product quality (Luca, 2011). From one research on online reviews, 82 percent of respondents say their purchase decisions have been directly influenced by online reviews. Currently, Yelp is the most popular online consumer review website used for local business reviews and recommendations (Bird, 2015). It is an online consumer review website for shopping, restaurants, home and other services containing more than 83 million reviews (Yelp, 2016). The most important reason for using Yelp is for information seeking, followed by other reasons of entertainment, convenience, interpersonal utility, and to pass time (Hicks et al., 2012). Yelp is important for facilitation of e-commerce as consumers can read reviews on Yelp before deciding upon whether to purchase from that vendor. According to a research on Yelp, A one star increase in Yelp rating leads to a 5-9 percent increase in revenue (Luca, 2011). The uniqueness of Yelp

being the most popular online consumer review website along with the limited published research on Yelp calls for the need for research to understand variables associated with text reviews.

For this research, I will use a data set consisting of reviews from the website Yelp.com and business license data from City of Chicago data portal to explore the interplay of my three matter of interest on restaurant close. The method I'm going to use is mostly from Natural Language Toolkit, including POS Tagging, sentiment analysis, etc.

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